

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference  343-04		Date of mailing (day/month/year) <b>29 JUN 2005</b> <b>FOR FURTHER ACTION</b> See paragraph 2 below
International application No.  PCT/US04/42807	International filing date (day/month/year)  20 December 2004 (20.12.2004)	Priority date (day/month/year)  19 December 2003 (19.12.2003)
International Patent Classification (IPC) or both national classification and IPC  IPC(7): F16B 21/00, 19/00 and US Cl.: 411/511, 516, 520, 508, 509, 510, 352, 349, 549, 554, 350		
Applicant  SOUTHCO, INC.		

1. This opinion contains indications relating to the following items:

- |                                     |              |                                                                                                                                                                      |
|-------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion                                                                                                                                                 |
| <input type="checkbox"/>            | Box No. II   | Priority                                                                                                                                                             |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability                                                                     |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention                                                                                                                                           |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited                                                                                                                                              |
| <input checked="" type="checkbox"/> | Box No. VII  | Certain defects in the international application                                                                                                                     |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application                                                                                                                |

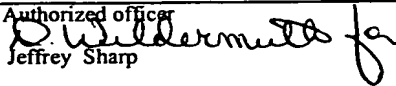
### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Jeffrey Sharp Telephone No. (703) 308-4177
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**WRITTEN OPINION OF THE  
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**Box No. 1 Basis of this opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format  
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>8</u>	YES
	Claims <u>1-7, 9-17</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-17</u>	NO
Industrial applicability (IA)	Claims <u>1-17</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Please See Continuation Sheet

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**Box No. VII Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Claim 4 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: There is no sufficient antecedent basis for the limitation "the inner spring leg".

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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

**V. 2. Citations and Explanations:**

Claims 1-5, 7, 9-11, and 15-17 lack novelty under PCT Article 33(2) as being anticipated by Swanson US-2,556,988 A.

In short, Swanson discloses a one-part receptacle (12) that receives a quarter turn fastener (10). The receptacle (12) has a hole (28) for engaging the fastener (10, two outer legs (tabs shown in Figure 1) on each side of the fastener, and an inner leg centered between the two outer legs. The inner leg is technically, "acute" with respect to the outer legs as well as with the receiving component, because any angle less than 90 degrees (which could include zero degrees) is by definition "acute". The fastener may be inserted into a receiving component (38) prior to placing a second component (22) thereon, and/or prior to the insertion of a quarter turn fastener (10). The term "compliance" and "compliant" is broad to the extent of encompassing any relationship between the receiving component (38) and the one part receptacle. The inner and outer legs (tabs shown in Figure 1) are bent so as to form laterally extending "wings".

Claims 1-7, 9-15, and 17 lack novelty under PCT Article 33(2) as being anticipated by Kuffel US-2,556,988 A.

In short, Kuffel discloses a one-part receptacle (10) comprising an inner spring leg (16), in the middle of two outer legs that are "joined at the ends". The inner leg is positioned at an incline of 30 degrees with respect to both the outer legs and a receiving component (30), in order to provide "compliance" with the component (30) in the same direction as fastener entry.

Claim 8 lacks an inventive step under PCT Article 33(3) as being obvious over Kuffel US-2,556,988 A.

Although Kuffel fails to expressly suggest an optimum inclination angle between the leg members, it would have been obvious to those having an ordinary skill in the art, that simple experimentation would yield similar ranges. In fact, the relative angle between the legs is expected to change, as Kuffel suggests an outward deflection of inner spring legs (16) (col. 2 lines 54-60). Further, Kuffel only broadly suggests that the "spring legs (16) extend from the sides ...at a downward angle" (col. 2 lines 50-51). Therefore, it would be obvious to provide any acute angle between the inner and outer legs.

Claims 13 and 14 lack an inventive step under PCT Article 33(3) as being obvious over Swanson US-2,556,988 A.

Although Swanson does not expressly state the material of the receptacle, it would be understood and appreciated by those of ordinary skill in the art, that the material of the fastener is "stamped or forged" of metal (col. 2 lines 14-16), of which could comprise a high or low carbon content.

Claims 6, 13, and 14 also lack an inventive step under PCT Article 33(3) as being obvious over Swanson US-2,556,988 A in view of Johnson et al. US-3,504,875.

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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Swanson, fails to disclose the two outer legs to be joined together.

Johnson et al. show a one part receptacle (14) having a hole (28) for receiving a quarter turn fastener (60,62), and suggests outer legs (36) to be joined at the ends. This could be to provide additional strength to the receptacle, to prevent the legs from bending away from each other, or to maintain better alignment of the receptacle with the aperture. Johnson et al. further suggest that it would be obvious to select metal or carbon steel as the material for the receptacle (col. 2 lines 68-70).